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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Manfred Schmitt

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EXAMINER

OREILLY, PATRICK F

ART UNIT

PAPER NUMBER

3749

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/507,038	Applicant(s) SCHMITT ET AL.	
	Examiner Patrick F. O'Reilly III	Art Unit 3749	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21, 22 and 24-29 is/are allowed.
- 6) ☒ Claim(s) 16-20 is/are rejected.
- 7) ☒ Claim(s) 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input checked="" type="checkbox"/> Other: <u>See Continuation Sheet</u> . |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :12/12/2008; 5/5/2009; 8/27/2009.

Continuation of Attachment(s) 6). Other: English translation for DE 34 24 580 C1 (machine-generated).

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). Certified copies of the priority documents have been received.

Information Disclosure Statement

2. The information disclosure statements (IDS) submitted on December 12, 2008, May 5, 2009, and August 27, 2009 are acknowledged. The submission are in compliance with the provisions of 37 C.F.R. § 1.97 and 37 CFR § 1.98 and, therefore, the references therein have been considered.

Drawings

3. The drawings are objected to because the lineweights employed in Figures 1-4 are not uniform and, therefore, do not satisfy the requirements of 37 CFR 1.84(l). For example, the handwritten notations and the leader lines associated therewith should be replaced with typewritten notations and leader lines.
4. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the

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drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities:

On page 4 of the specification, in line 13, the word "a" should be inserted between the word "to" and the word "further".

On page 9 of the specification, in line 8, the examiner believes that reference character "5", which immediately follows the word "step", should be changed to reference character "S5" (see Fig. 4).

Appropriate correction is required.

Claim Objections

6. Claim 23 is objected to because of the following informality: the claim does not end with a period as required. Appropriate correction is required.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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8. Claim 19 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

9. Claim 19 recites the limitation “the first bypass line” in line 2 of this claim. There is an insufficient antecedent basis for this limitation in the claim. The “first bypass line” was not referred to in any of the preceding claims upon which this claim depends. For the purpose of an examination on the merits, the examiner has considered this as a recitation to “the bypass line”, rather than “the first bypass line” as recited.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

11. **Claims 16-20** are rejected under 35 U.S.C. 102(b) as being anticipated by German Patent No. DE 34 24 580 C1 (“DE ‘580”). The specification and the drawings in the DE ‘580 reference disclose all of the elements recited in **claims 16-20** of this application.

12. Specifically, in regard to claim 16, the DE ‘580 reference discloses all of the claimed elements, including: a first external coolant circuit (e.g., 8, 18, 30) including a first flow channel (e.g., flow line 8), a first return channel (e.g., return line 18), and a main coolant pump (30), wherein the first external coolant circuit (e.g., 8, 18, 30) supplies waste heat from the internal combustion engine (2) to a radiator (12), and wherein the first flow channel (8) is connected to the cylinder head (6) of the internal combustion engine (2); a second external coolant circuit (14,

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46, 48) including a second flow channel (e.g., flow line 14), a second return channel (e.g., flow line 46), and an auxiliary coolant pump (electric-propelled coolant pump 48), wherein the second external coolant circuit (14, 46, 48) supplies waste heat from the internal combustion engine (2) to a heat exchanger (heater heat exchanger 16), and wherein the second flow channel (14) is connected to a cylinder head (6) of the internal combustion engine (2); and a distributor (e.g., switchable directional valve 56) having a first position (e.g., diverted flow position) and a second position (e.g., straight flow position), wherein in the first position (e.g., diverted flow position) the distributor (56) fluidly connects the first return channel (18) to the second return channel (46) via intermediate connecting line (54), and wherein in the second position (e.g., straight flow position) the distributor (56) connects the second return channel (46) to the first flow channel (8) and the auxiliary coolant pump (48) delivers coolant from the second return channel (46) to the first flow channel (8), thereby bypassing an engine block (e.g., cylinder block 4) of the internal combustion engine (2). Refer to DE '580, sole figure; also refer to the attached English abstract for DE '580 and the English translation of DE '580, page 3, paragraphs 4-8; page 4, paragraphs 1-5; and page 5, paragraph 1. Therefore, because all of the elements in claim 16 of this application are disclosed by the DE '580 reference, this claim is rejected in accordance with 35 U.S.C. 102(b).

13. In regard to claim 17, the DE '580 reference further discloses a bypass line (e.g., short-circuit line 28) provided in the first coolant circuit (8, 18, 30) to bypass the radiator (12). See DE '580, sole figure; also see the attached English translation of DE '580, page 3, paragraph 5; and page 4, paragraph 1. Thus, the DE '580 reference meets the language of this claim.

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14. In regard to claim 18, the DE '580 reference further discloses that the bypass line (e.g., short-circuit line 28) is selectively opened and closed depending on temperature (the flow through the short-circuit line 28 is controlled in accordance with the temperature of the engine 2 by means of coolant thermostat 22). Refer to DE '580, sole figure; also refer to the attached English translation of DE '580, page 3, paragraph 5; and page 4, paragraph 1. Consequently, the DE '580 reference also meets the language set forth in claim 18.

15. In regard to claim 19, the DE '580 reference further discloses that the distributor (e.g., switchable directional valve 56) in the second position (e.g., straight flow position) connects the second return channel (e.g., flow line 46) to the first bypass line (e.g., short-circuit line 28) via flow line (8). See DE '580, sole figure. Therefore, the DE '580 reference also meets the language set forth in this claim.

16. In regard to claim 20, the DE '580 reference further discloses that the auxiliary coolant pump (electric-propelled coolant pump 48) is controlled as a function of temperature (e.g., by means of the engine (2) temperature measured by the temperature sensor 45). Refer to DE '580, sole figure; also refer to the attached English translation of DE '580, page 4, paragraph 3. Thus, the DE '580 reference meets the language set forth in claim 20.

Allowable Subject Matter

17. **Claims 21-22 and 24-29** are allowable over the prior art.

18. **Claim 23** is objected to because of the informality discussed in the Claim Objections section above, but would be allowable if this informality is corrected.

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Response to Arguments

19. Applicant's arguments with respect to pending claims 16-20 have been considered but are moot in view of the new ground(s) of rejection.

20. Applicant's arguments with respect to pending claims 21-29 have been considered but are moot in view of the allowable subject matter listed above.

Conclusion

21. See attached form PTO-892 for additional pertinent prior art, which was not directly relied upon in this action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick F. O'Reilly III whose telephone number is (571) 272-3424. The examiner can normally be reached on Monday through Friday, 8:30 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven B. McAllister can be reached on (571) 272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Patrick F. O'Reilly III/
Examiner, Art Unit 3749

/Steven B. McAllister/
Supervisory Patent Examiner, Art Unit 3749